

ABSTRACT OF THE DISCLOSURE

[0062] An imaging device, such as an EEM, includes an electric/magnetic lens used to focus pulsed electrons emitted from an object on to a target plane. Before a pulse of emitted electrons reaches the lens, electrons are spatially separated in dependence on their respective kinetic energies and are then subject to a time varying electric field that keeps the final focal plane constant for a wide variety of different energy electrons. The electric field compensates for variations in the image focal length caused by a spread in kinetic energies, causing the electrons to be focused proximate the target plane, reducing chromatic aberration. The varying electric field may be provided by varying an electric potential at the lens by, for example, varying a voltage supplied to an electrode at the lens. This potential effectively varies the focal strength of the lens in time, in order to compensate for variations in kinetic energies of electrons arriving at the lens, effectively keeping the image plane position constant.